clear clinical failure of treatment (twice). The case also once again emphasises the need for caution in treatment of gonorrhoea acquired abroad.

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HIV testing in genitourinary medicine—sustained increased demand in 1991

During 1986–1987 the British Government launched large-scale health education campaigns designed to increase awareness of HIV infection and AIDS. They were found to increase public awareness[1] and also appeared to result in an increase in requests for HIV testing at genitourinary medicine clinics.[2–4] Beck *et al*[4] reported that HIV testing declined in the months following these HIV/AIDS mass media campaigns, although testing was sustained at a substantially higher level compared with that preceding the campaigns. We write to report a further sustained rise in HIV testing in a genitourinary medicine clinic since January 1991.

This clinic offers the only confidential, open access HIV testing service in Nottingham. The majority (88%) who attend for testing are self-referred and all receive pre- and post-test counselling. During the period September 1986 to December 1991, 4981 HIV antibody tests were performed. The number of tests performed monthly increased from October 1986 (n = 35) to a peak in March 1987 (n = 269), which coincided with a National AIDS Campaign week. From April 1987 (n = 87) onwards the monthly number of tests requested declined, although numbers were higher than those prior to the media campaigns and remained fairly stable. The average number of monthly HIV tests during 1988 was 51, 1989 was 46 and 1990 was 56.

A gradual increase in HIV testing occurred late in 1990 and in January 1991 there was a dramatic increase (see fig). This marked increase in testing has been sustained at higher levels than previously seen at the clinic throughout 1991. HIV antibody tests in 1991 have averaged 135 per month. Individuals newly identified to have HIV infection in this testing service numbered 11 in 1988, 9 in 1989, 10 in 1990 and 16 in 1991.

The marked increase in requests for HIV antibody testing observed in January 1991 coincided with the screening of an ongoing series of episodes of the BBC television programme "Eastenders", which portrayed a key character contracting HIV infection through heterosexual sex. The viewing figures for "Eastenders" at this time were approximately nineteen million (BBC personal communication). The further rise in HIV testing in December 1991 immediately followed the wide publicity surrounding World AIDS day and the death of the rock star, Freddie Mercury, from AIDS.

Our observation of a sustained increase in demand for HIV testing coincident with events in "Eastenders" supports the proposition that portrayal of realistic "role models" on television effectively conveys information and health education messages about HIV infection to the maximum number of people.[5] We suggest that popular TV may have an important role to play in increasing awareness about the risk of HIV infection from unprotected sex.

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In search of an optimum method for the sterilisation of a cryoprobe in a sexually transmissible diseases clinic

It appears that sterilisation of the tip of a cryoprobe (an instrument that freezes with nitrous oxide or carbon dioxide) is a problem that internationally has only recently been addressed. There is theoretical possibility of the actual transmission, by the probe, of HPV and even HIV. Hyfrecator needles need to be sterilised, a fact that has long been appreciated. Only recently, I believe, has the cryoprobe come under the same scrutiny. What can be done?

Thermal disinfection by an autoclave is one alternative; the other leading contenders for the task are glutaraldehyde soaks and exposure to ethylene oxide.

An operational autoclave temperature is between 121°C and 134°C (Personal communication, P. Robbins). The changeable tip of a cryoprobe is made of stainless steel and this can readily be autoclaved. The autoclave kills HIV, the minimum exposure being 78°C–80°C for 10 minutes.[1] An autoclave also kills human papilloma virus (HPV) and hepatitis B virus (HBV) (Personal communication A. Henderson). It is interesting to note that 1 hour at 121°C will even kill the "slow" virus of Jacob-Creutzfeldt disease.[2] Glutaraldehyde also kills HIV and HBV. Definitive articles on HIV,

HBV and HPV transmission using polymerase chain reaction (PCR) technology have been published.[3-5]

Firstly Hanson *et al* in 1989[3] assessed contamination of twenty endoscopes used in patients with AIDS. The endoscopes were washed with detergent and were disinfected for 2 minutes in 2% alkaline glutaraldehyde. The PCR with Southern blotting, cell cultures and antigen immunoassay were used to detect HIV. Amongst the viruses, examined for was HBV. Seven of 20 unwashed endoscopes were contaminated with HIV. Washing alone removed all detectable organisms from 66 to 68 contaminated sites. Then disinfection removed the rest. The authors concluded[3] that the inability of a sensitive assay such as PCR to detect HIV, on an endoscope, after cleaning is reassuring.

The same leading author in 1991[4] reported that bronchoscopes, used on HIV patients, were subjected to irrigation (of the suction biopsy channel), with modified viral transport medium, and to swabbing of the insertion tube. This occurred before and after cleansing in detergent, and with the same glutaraldehyde regimen as in their previous report. Amongst organisms detected were HBV and *Pneumocystis carinii*. The cleaning alone removed all detectable contaminants.

HPV is assumed to be killed by glutaraldehyde but viability may be difficult to assess because HPV cannot be grown in vitro. The report by Lou *et al*[5] is, however, didactic on this point. The last report to focus upon is that of Lou *et al*, in 1991,[5] using PCR once again. They showed that 2% glutaraldehyde quickly destroys HPV DNA. Thus, if colposcopy instruments are soaked in glutaraldehyde between patients, HPV DNA detected in cervical specimens will not originated from them.

Ethylene oxide takes 4 hours to sterilise and there is 12 hours aeration time to get the gas "out of the system". Such a method is too slow. It is worth bearing in mind that cryoprobe tips are unscrewable, and approximately four would be required to satisfy time requirements of an autoclave operating time of approximately 20 minutes, and time to deal adequately with patients. Each tip costs Aus $330 (approximately £110 (UK)). It might not be feasible financially to operate with the huge number an ethylene oxide operation would demand.

With glutaraldehyde a 2% solution is ideal and it requires 10 minutes soaking time for the tip of the probe (Hanson *et al* state 2 mins only[3]).[6] Side-effects of handling glutaraldehyde may preclude its use. Excessive exposure to its vapours may result in headaches, nausea and vomiting. In an unrinsed eye it may cause irreversible damage. Persons working with this chemical should avoid skin and eye contact, and prolonged inhalation exposures. The Australian National Occupation Health and Safety Commission's (Worksafe) Occupational exposure standard for glutaraldehyde is 0·2 ppm (0·7 mg/m3).[6]

Glutaraldehyde demands a local exhaust ventilation system over soaking trays, (with a minimum of 12 air changes per hour; D. Smith, personal communication) and a lot of safety clothing for staff. This includes impervious aprons and overalls, goggles and gloves. Gloves need to be made of nitrile, heavy neoprene or butyle rubber.[6]

If we accept that a cryoprobe is an essential piece of equipment in an STD clinic (dealing with meatal warts, warts in general and molluscum contagiosum), then we should, in turn, accept that an installed autoclave is also essential in the same environment, or else there should be access to the same in a nearby Central Sterile Supplies Department in a section of the building or hospital. The cost of an autoclave starts at Aus $3000 (approximately £1100 (UK)). Installation of the latter should prepare us for the 1990s.

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